

MESECNHYMAL STEM CELLS AS A VEHICLE FOR ION CHANNEL  
TRANSFER IN SYNCYTIAL STRUCTURES

ABSTRACT OF THE DISCLOSURE

This invention provides a composition for delivery of a gene to a syncytial structure comprising stem cells incorporated with the gene. This invention also provides a composition for ion channel transfer which comprises stem cells incorporated with a compound in an amount sufficient to create ion channels. This invention also provides for a method of expressing a functional gene product in a syncytial structure comprising administering a composition, comprising stem cells that have been incorporated with a gene, to the syncytial structure. This invention further provides a method of expressing a functional ion channel in a syncytial structure comprising administering a composition, comprising stem cells that have been incorporated with a compound in an amount sufficient to create ion channels, to the syncytial structure. This invention also provides a composition for delivery of small molecules comprising stem cells incorporated with the small molecules or genes encoding the small molecules.